

CLAIMS:

1. A method (20) for automatically self-configuring a network device being added to a network comprising:
  - attempting (21) to access a predetermined service from the network, which predetermined service is also capable of being performed by the network device;
  - upon (24) successfully accessing the predetermined service by the network device, disabling the predetermined service within the network device; and
  - upon (23) unsuccessfully accessing the predetermined service by the network device, activating the predetermined service within the network device.
2. The method (20) according to claim 1, wherein the predetermined service includes a network address translation service.
3. The method (20) according to claim 1, wherein the predetermined service includes a dynamic host configuration protocol server.
4. The method (20) according to claim 1, wherein the predetermined service includes DNS service.
5. The method (20) according to claim 1, further comprising:
  - acquiring (31) an Internet Protocol address from the network;

determining (32) if the Internet Protocol address assigned by the network is a private Internet Protocol address.

6. The method (20) according to claim 5, further comprising:

upon (34) determining that the assigned Internet Protocol address is a private Internet Protocol address, self-configuring the network device to use a local area network port to access the Internet and the network.

7. The method (20) according to claim 5, further comprising:

upon (33) determining that the assigned Internet Protocol address is not a private Internet Protocol address, self-configuring the network device to use a wide area network port to access the Internet and a local area network port to access the network.

8. A method (30) for automatically self-configuring a network device being added to a network comprising:

acquiring (31) an Internet Protocol address from the network;

determining (32) if the Internet Protocol address assigned by the network is a private Internet Protocol address; and

upon (34) determining that the assigned Internet Protocol address is a private Internet Protocol address, self-configuring the network device to use a local area network port to access the Internet and the network.

9. The method (30) according to claim 8, further comprising:  
upon (33) determining that the assigned Internet Protocol address is not a private Internet Protocol address, self-configuring the network device to use a wide area network port to access the Internet and a local area network port to access the network.

10. The method (30) according to claim 8, further comprising:  
attempting (21) to access a predetermined service from the network, which predetermined service is also capable of being performed by the network device;  
upon successfully (24) accessing the predetermined service by the network device, disabling the predetermined service within the network device; and  
upon (23) unsuccessfully accessing the predetermined service by the network device, activating the predetermined service within the network device.

11. The method (30) according to claim 8, further comprising:  
attempting (21) to access one or more predetermined services from the network, each of which one or more predetermined services is also capable of being performed by the network device;  
disabling (24) within the network device each of the one or more predetermined services that were successfully accessed by the network device; and  
enabling (23) within the network device each of the one or more predetermined services that were unsuccessfully accessed by the network device.

12. The method (30) according to claim 10, wherein the predetermined service includes a network address translation service.

13. The method (30) according to claim 10, wherein the predetermined service includes a dynamic host configuration protocol server.

14. The method (30) according to claim 10, wherein the predetermined service includes DNS service.

15. A method (30) for automatically self-configuring a network device being added to a network comprising:  
acquiring (31) an Internet Protocol address from the network; and  
self-configuring (33) the network device to act as a gateway to the Internet for the network based on a format of the Internet Protocol address.

16. The method (30) according to claim 15, wherein the format of the Internet Protocol address includes an address type.

17. The method (30) according to claim 15, wherein the address type includes a public Internet Protocol address.

18. The method (30) according to claim 15, wherein the address type includes a private Internet Protocol address.

19. The method (30) according to claim 15, wherein the address type includes a format that matches 192.168.x.x or 10.x.x.x wherein the numbers constitute octets and the x constitutes any octet.

20. A method (40) for self-configuring a network device comprising:  
sending (41) a DHCP discover message to the network upon coupling the network device to a network;

upon (43) receiving no response to the DHCP discover message, enabling DHCP service within the network device;

upon (44) receiving a response to the DHCP discover message, sending a DHCP request for an IP address;

upon (45) receiving a response to the DHCP request message, examining the received IP address to determine if the received IP address is a private IP address or not;  
and

upon (47) determining that the received IP address is a private IP address, then using a single LAN port to access the network and the Internet; and

upon (46) determining that the received UP address is not a private IP address, then using a LAN port to access the network and a WAN port to access the Internet.

21. An apparatus (13, 17) for coupling to a network comprising:

a local area network port (5);

a wide area network port (6);

a processor (4) to send data to and from the local area network port (5) and the wide area network port (6), said processor (4):

sending (41) a DHCP discover message to the network upon coupling the local area network port (5) to a network;

upon (43) receiving no response to the DHCP discover message, enabling DHCP service;

upon (44) receiving a response to the DHCP discover message, sending a DHCP request for an IP address;

upon (45) receiving a response to the DHCP request message, examining the received IP address to determine if the received IP address is a private IP address or not; and

upon (47) determining that the received IP address is a private IP address, then using the local area network port (5) to access the network and the Internet; and

upon (46) determining that the received UP address is not a private IP address, then using the local area network port (5) to access the network and the wide area network port (6) to access the Internet.